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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,006	08/15/2006	Shunsuke Kakisaka	10873.1935USWO	9023
53148	7590	08/25/2008	EXAMINER	
HAMRE, SCHUMANN, MUELLER & LARSON P.C. P.O. BOX 2902-0902 MINNEAPOLIS, MN 55402			RAABE, CHRISTOPHER M	
ART UNIT	PAPER NUMBER			
	2879			
MAIL DATE	DELIVERY MODE			
08/25/2008	PAPER			

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/598,006	KAKISAKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	CHRISTOPHER M. RAABE	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-4 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 15 August 2006 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>8/15/06</u> .	6) <input type="checkbox"/> Other: ____ .

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Muzeroll (USPN 5296779).

With regard to claim 1,

Muzeroll discloses in at least figures 1 and 7, column 1, lines 20-35 and column 5, lines 35-45 a metal halide lamp comprising: an outer tube (12,72); an inner tube (30,70) that is provided in the outer tube (12,72), has a sealing portion (74,75) in at least one end portion, and is made of quartz glass; and an arc tube (10) provided in the inner tube (30,70), wherein assuming that the outer tube (12,72) has a maximum outer diameter A (20 mm), the inner tube (30,70) has a maximum outer diameter B (14 mm), and the metal halide lamp consumes P (40 W) of power, the following relationships are satisfied:  $0.06P+15.8 \leq A \leq 25$ ,  $0.05P+9.0 \leq B$  and  $1.14 \leq A/B$ , where P satisfies  $20 \leq P \leq 130W$ .

With regard to claim 3,

Muzeroll discloses the metal halide lamp according to claim 1, wherein the inner tube (30,70) is filled with nitrogen gas with a nitrogen gas pressure of 20 kPa or more when a temperature in the inner tube is 25° C.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muzeroll (as above), in view of Bergman et al. (USPN 5610469).

With regard to claim 2,

Muzeroll discloses the metal halide lamp according to claim 1. While Muzeroll does not disclose the features of the arc tube, Bergman et al. do disclose in at least the example (beginning at the bottom of column 5) wherein assuming that the arc tube has a maximum outer diameter C (mm), the following relationship is satisfied:  $0.05P+2.2 \leq C \leq 0.07P+5.8$ , providing light source for the metal halide lamp of Muzeroll. It would therefore have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the arc tube of Bergman et al. into the lamp of Muzeroll in order to provide a light source.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muzeroll (as above).

With regard to claim 4,

Muzeroll et al. disclose the metal halide lamp according to claim 1 being employed in commercial usage. While the specific usage is not disclosed, a lighting apparatus comprising: a bottom-surface-open-type lighting unit with lamp that is mounted in the lighting unit was well known to those of ordinary skill in the art at the time of the invention as a commercial usage of a lamp and therefore would have been obvious to the same to incorporate into the invention of Muzeroll.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER M. RAABE whose telephone number is (571)272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

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would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Raabe/

/Mariceli Santiago/  
Primary Examiner, Art Unit 2879